

# CERTIFICATE OF ANALYSIS

Product Description CYANOCOBALAMIN  
Product Number C242  
Lot Number HCW0242008  
Storage Temperature 2-8°C  
Molecular Weight 1355.37 g/mol  
Formula  $C_{63}H_{88}CoN_{14}O_{14}P$   
CAS Number 68-19-9

## Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water @ 10 mg/mL	Passes
pH	Under Development	6.2
Physical Appearance Color*	2083-10 to 2083-30, HC-64, HC-61, PM-15, or PM-17	HC-64 Dark Red
Texture	Crystalline Powder	Crystalline Powder
Solution Appearance Clarity	Clear	Clear
Color	Dark Pink to Deep Red	Dark Pink
Average Time to Dissolve	For Information Only (Approx. 6 min)	Passes
Insolubles	None	Passes
FTIR	Conforms to Structure	Passes
Purity	Minimum 98%	99.20%

\* Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color Preview™).

## Biological Testing:

Test Concentration: 10.0 mg/L

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
Supports and/or facilitates plant growth and/or shoot proliferation in two or more plant tissue cultured lines with no morphological aberrations to plants	Xanthi Tobacco Callus	Passes
	Perilla Fantasy	Passes

The material is derived from microbial fermentation and highly purified and considered semi-synthetic. No animal- or plant-derived components were used in the manufacture of this product.

**PhytoTechnology Laboratories® provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. PhytoTechnology Laboratories® shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

Date of Release: 24-March-2023

Recommended Shelf Life Date: March 2028



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